

Just as the fluviatile shells possess a wider range and inferentially greater powers of dispersal than terrestrial mollusks, so do minute land-shells gain more extended limits than bulkier forms. If a collection of Tasmanian or New-Zealand shells were put into a sieve, the shells that passed the meshes would roughly represent those with a wide range, and the shells retained those with a restricted one. That none of the larger, but all the smaller, species of Fiji (continental islands) are represented in Samoa (oceanic) is a significant illustration which may explain how the micro-snail faunas of Tasmania and New Zealand are, as Mr. Suter says, so closely allied, while the macro-snail faunas repudiate any relationship.

Conclusion.—None of the species and about half the genera of their respective land-molluscan faunas are common to Tasmania and New Zealand; this community does not embrace the Streptoneura. The common element for the most part is represented by minute species and widespread genera, and does not necessarily imply former direct land communication. As a whole the two faunas are wider apart than those of Britain and the Atlantic States of North America.

Sydney,
Feb. 19, 1894.

LI.—*A new Pedunculate Cirripede.*

By the Rev. THOMAS R. R. STEBBING, M.A.

[Plate XV.]

TRICHELASPIS, gen. nov.

Valves five; the scuta trifid; the carina terminating in a fork at its base. The mandibles with five or six teeth; the first maxillæ very slightly notched. In each cirrus the two rami are subequal. The caudal appendages are one-jointed, spinose.

The name of the genus is derived from *τρίχηλος*, cloven in three, and *ἀσπίς*, a shield. The characters are but little removed from those of *Dichelaspis*; but since that name was chosen by Darwin to displace the earlier names *Octolasmis* and *Heptolasmis*, on the ground that those titles conveyed a false impression, it seems impossible to retain *Dichelaspis*, meaning a bifid scutum, for a species in which the scutum is very conspicuously trifid.

Trichelaspis Forresti, sp. n.

General appearance.—Capitulum compressed, the breadth about two thirds of the length, its occludent margin microscopically crenulate; the valves translucent, covered by thin membrane, approaching one another at certain points, but nowhere coming in contact; the peduncle slightly longer than the capitulum.

Scuta.—The occludent segment long, narrow, widening a little distally, the rounded apex approaching the tergum; the basal segment forming an angle of about seventy degrees with the occludent, which it does not quite equal in length, very narrow, apically pointed, the apex overlapping the fork of the carina; from the basal there arises a median segment, also very narrow and pointed, a little crooked, two thirds of the length of the occludent segment, from which it diverges much less than it does from the basal segment. All the segments are continuously calcified. The whole valve has a general resemblance to the figure of the scapular apparatus of a tortoise.

Terga deeply and widely bifid, so as to have a sort of collar-shape, the two apices approaching the apex of the occludent segment of the scutum; the two segments or lappets of the tergum are equal in length, widest at the middle.

Carina much bowed, narrow, a little widened towards the apex, which overlaps the terga without approaching them very closely; the fork at the base is variable, being in some specimens much more pronounced than in others.

Peduncle cylindrical, moderately stout, a little longer than the capitulum.

Labrum.—The crest has a row of minute tolerably acute teeth, the sides of the teeth being equal in length to their bases; the central teeth are more widely separate than those at the sides.

Mandibles.—There are in all six teeth, the largest, at the extremity of the convex margin, being remote from the rest; the convex border carries half a dozen pairs of setules, and the distal part of the opposite border is more densely setuliferous.

The *first maxilla* have a group of three spines preceding the notch, which is minute; the rest of the border, which is very slightly advanced, carries five sets of smaller spines mixed with setæ.

The *second maxilla* are broadly lamellar, surrounded with setæ or flexible spines, many of which are rather elongate.

Cirri.—The first pair are distant from the second and not

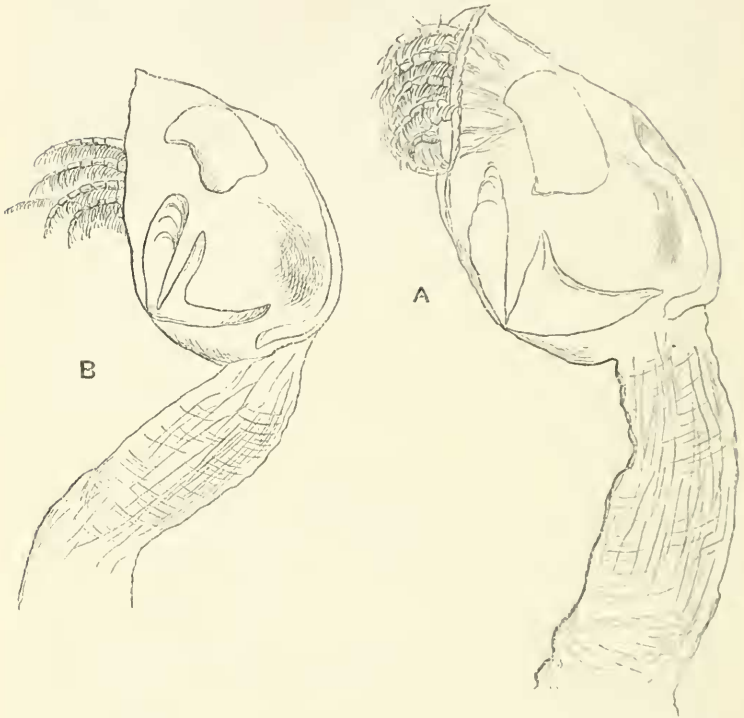
above half their length; they curl closely round the mouth-organs, the functions of which they may be presumed to assist; each ramus has seven segments, all of them furnished with numerous spines and all of them stout except the terminal one. The remaining pairs have rami of from twelve to fourteen segments, each segment carrying from eight to thirteen pairs of smooth spines, of which the distal are very long, the proximal very short; there is also a small group of spines at the apex of the outer margin of each segment. In all the pairs the peduncle is armed with many spines.

The *caudal appendages* are slender, shorter than the peduncles of the sixth pair of cirri, tipped with a group of spines, two of which are considerably longer than the appendages themselves. The penis is about equal in length to any one of the last five pairs of cirri; near the base it forms an abrupt crook; its breadth is considerably diminished near to the blunt apex, which is very hairy, small hairs or setules being more sparsely distributed over the whole length. The rings, which Darwin regards as equivalent to segments, are extremely numerous.

Size.—The length of the species is about a quarter of an inch, of which the peduncle occupies the larger half.

The name is given in compliment to W. R. Forrest, Esq., from whom I received the specimens. In sending me a small collection of animals from the West Indies Mr. Forrest says:—"May I call your attention to the growth (?) on a small piece of membrane, the cuticular lining of branchiostegite of a crayfish?" This growth proved to be a considerable number of specimens of the little cirripede here described, with the body projected from the capitulum, as shown in the figure. There was, however, one little group of three in which the body was within the capitulum. These were not situated, like the other specimens, either on the membrane or the podobranchia, but on the calcified joint which supports the branchia, and in these three the terga and scuta are not quite in conformity with those of the other specimens. In one of the three (fig. A, p. 446) the basal and median segments of the scutum are represented by the two acute horns of a single piece, and in a second (fig. B) the two segments are solidly combined below. The terga of these specimens are almost oblong, with a very slight excavation facing the apex of the occludent segment of the scutum. The third specimen, as far as could be seen without dislodging it, showed agreement rather with these two than with the rest. Darwin has noticed that the valves of *Dichelaspis Warwickii* are variable in shape, and probably that is the case with the present species. Even

in the prevalent form the median segment of the scutum varies considerably in respect to the proximity of its base to the base of the ocludent segment.



Of the nine species of *Dichelaspis* discriminated by Dr. Hoek it is possible that *Dichelaspis Warwickii* (Gray) might conveniently be transferred to the new genus *Trichelaspis*, the carinal margin of the basal segment of the scutum in that species being in old specimens much hollowed out. It forms, however, obtuse, not acute apices.

EXPLANATION OF PLATE XV.

n.s. Natural size.

sc. Scutum.

T. Tergum.

C. Carina.

m. Mandible.

mx. 1. First maxilla.

mx. 2. Second maxilla.

cir. 1. Cirri of first pair.

cir. 6. Terminal part of a cirrus of the sixth pair.

p. Apex of penis.

c.a. One of the caudal appendages.

The mouth-organs are drawn to the same scale as the detached cirri and caudal appendage. The apical portions of the mandible, first maxilla, and penis are still more highly magnified.